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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,522	02/10/2004	Matthew G. Goodman	ASMEX.433A	1057

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EXAMINER	
MACARTHUR, SYLVIA	

ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
09/15/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,522	GOODMAN ET AL.	
	Examiner	Art Unit	
	Sylvia R. MacArthur	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 38-43* is/are pending in the application.

4a) Of the above claim(s) *38-43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-11, 38, 41, and 43 in the reply filed on 6/4/2009 is acknowledged. The traversal is on the ground(s) that independent claim 38 recites that neither the first means or the second means comprises lift pins and recited in paragraph three that the species I is covered by the elected claims. This is not found persuasive because as stated in the letter of non-compliance of 5/16/ 2008, species I and II are distinct because they are unconnected in design, operation, and effect, recall that the examiner also stated that claims 1-11 are species I and claims 38-43 are species II. Applicant's arguments have been consider by the examiner though they are unpersuasive in that applicant will be given consideration of the nonelected species upon allowance of a generic base claim.

The requirement is still deemed proper and is therefore made FINAL.

Response to Arguments

2. Applicant's arguments filed 6/4/2009 have been fully considered but they are not persuasive. The prior art of Huang et al (US 2004/0094095) teaches that the pins can be fixed when the pin support flange(s) 51 are omitted see page 3 section [0029].

3. Applicant argues that the screws 15 are adjustable and thus the prior art fails to meet the requirement that the first load platform is fixed relative to the second platform. Note that the claim does not require that the first load platform never be adjustable (as in prior to placement of the wafer) such that the prior of Gardner (US 5,300,175) meets the claim at least when the screw has been adjusted prior to processing and is maintained at that position.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5, and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gardner et al (US 5,300,175).

Gardner et al teaches a method for mounting a wafer to a submount (first platform 33/30, and col. 3 lines 1-37). The apparatus of Gardner comprises a reaction chamber 47, a first and second load platform (susceptor 21), see Figures. A heat source is inherent as a temperature controller is recited in col. 2 lines 53-66.

6. Claims 1-3, 5, and 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al (US 2004/0094095).

7. Huang et al teaches a substrate holder assembly used within reaction chamber see Figures. Huang et al teaches a first load platform 58 and second load platform 66, see Figures and sections [0027] and [0030]. The prior art of Huang et al (US 2004/0094095) teaches that the pins can be fixed when the pin support flange(s) 51 are omitted see page 3 section [0029].

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al or Huang et al in view of Arai et al (US 2003/0075109).

The teachings of Gardner et al or Huang et al were discussed above.

Both fail to teach:

Regarding claim 6: The first load platform comprises three support pins.

Regarding claim 7: The recited materials of construction.

The prior art of Arai et al teaches a vapor phase growth apparatus. Section [0030] of Arai et al teaches three support pins. The support pins are made from silicon carbide according to Section [0023] of Arai et al. The motivation to construct the apparatus of Gardner et al or Huang et al to provide three support pins is that three is the optimal number of pins to provide ample support for the substrate to avoid chemical and physical damage during processing. and/or preparation for wafer transport. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide three support pins as taught by Arai et al.

Additionally, it would have been obvious at the time of the claimed invention to construct the pins of silicon carbide as it is a widely known dielectric material and used to construct

pins and endure the harsh chemical and physical environment of semiconductor manufacturing.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al or Huang et al.

The teachings of Gardner et al or Huang et al were discussed above. Both fail to teach the recited distance between the first and second load platform.

The relative distance of the first and second load platform affects the ease of transferring the substrate between platforms and ensures the bending and slippage of the wafer is hindered. It is the examiner's position that the determination of the optimal relative distance is a matter of obviousness and could be determined without undue experimentation. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to have determined the optimum values of the relevant process parameters through routine experimentation in the absence of a showing of criticality, In re Aller, 220 F. 2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to - whose telephone number is 571-272-1438. The examiner can normally be reached on M-Th during the hours of 8 a.m. and 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September14, 2009

/Sylvia R MacArthur/
Primary Examiner, Art Unit 1792